

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts SECTOR  ${f 3}$  — CHART INFORMATION

# **SECTOR 3**

### ST. PETERSBURG GUBA AND NEVSKAYA GUBA

**Plan.**—This sector describes the S and N coasts of St. Petersburg Guba and the approach from seaward to Kronshtadt that forms part of the main shipping channel to St. Petersburg. In addition, Kronshtadt, the S and N coasts of Nevskaya Guba, and the port of St. Petersburg are also detailed. The descriptive sequence is from W to E.

#### **General Remarks**

3.1 At Kronshtadt, regular observations of the effects of wind on the water level have been made over a period of decades. These observations indicate that there are periodic changes in the water level due mainly to the flow of river water into the Baltic Sea and then into the North Sea, and due partly to meteorological conditions. The periodic changes are relatively small and follow a definite routine, showing two maximum and two minimum effects in each year. The former changes occur in August, December, and January and the latter in April, May, and October. The extreme difference in level between the maximum rise and the minimum fall of these seasonal changes may reach 0.9m.

The effect of the tide is small; the range at Kronshtadt due to this cause is not more than about 0.1m. The changes due to meteorological conditions are more pronounced at times, especially in the mouth of the Neva, where they cause heavy floods and serious damage.

At Kronshtadt, the water has been known to rise about 1.4m in 6 hours due to the meteorological changes. These conditions are more noticeable in their effect during the autumn and winter than during spring and summer. In general, E winds lower the water level and the W winds raise it. The force of the wind is of greater consequence than its direction.

The water level begins to rise somewhat earlier than the freshening or shifting of the wind, and it attains its maximum height before the wind reaches its greatest force. Any appreciable rise of the water level is a certain indiction of W winds. When certain conditions of wind and barometric pressure occur at the same time, the rise of the water level may be considerable.

At Kronshtadt, an increase of more than 3m above normal has been recorded, and at St. Petersburg, a rise of more than 3.5m above normal has been recorded. These extreme rises, which cause floods, are not frequent in October and November; the maximum rise at St. Petersburg during the months of February, March, April, and June has not exceeded 1.8m. The maximum difference between the high and low level at Kronshtadt in the last 100 years is 4.6m.

With winds from NNE through N to SSE, the water rises at Kronshtadt and falls with those from other directions.

The current in Nevskaya Guba sets W in mid-channel between Ostrov Kotlis and Mys Lisiy Nos at a velocity of about 0.25 knot, but in the S area of the estuary it is weaker. During light E winds, there is a W set with a velocity of about 0.5 knot and with strong winds from that direction, the set

attains a velocity, at times, of about 1.5 knots. No current is perceptible along the shores of the estuary.

**Depths—Limitations.**—The Safety Fairway, which extends between the TSS traffic lanes located off Ostrov Seskar (60°02'N., 28°23'E.) and St. Petersburg Lighted Buoy (60°02'N., 29°26'E.), has general depths of 20 to 31m; however, several shoal patches, wrecks, and obstructions exist within and adjacent to the fairway. All these dangers may best be seen on the chart. This fairway also passes through a former Mine Danger Area, as well as the Kronshtadt Fortified Zone.

Vessels up to 260m in length, 40m beam, and 11m fresh water draft are able to proceed to St. Petersburg; however, vessels exceeding 170m in length with drafts of 8.5m and over are considered to be constrained by their draft and are entitled to display the appropriate signals. Vessels are urged to consult with the pilot and the local authorities before displaying such signals. Vessels displaying these signals are given the right-of-way. Vessels constrained by draft must employ tugs in the narrows between Lesnoy Mol and Bolshaya Neva.

**Pilotage.**—Pilotage, E of St. Petersburg Lighted Buoy, for St. Petersburg and Kronshtadt is compulsory. Vessels must send an ETA at the St. Petersburg Lighted Buoy or in ice conditions, at the ice edge, and a request for pilotage 48 hours, 24 hours, and 4 hours in advance through INFLOT. Pilots board in the vicinity of St. Petersburg Lighted Buoy. In bad weather, vessels may be required to follow the pilot vessel to a sheltered area.

**Regulations.**—Vessels bound for ports in Russia should send an ETA to the agents 12 days, 96 hours, and 12 hours in advance. All oil, gas, and chemical tankers should send an ETA 14 days, 72 hours, and 12 hours in advance.

In Kronshtadtskiy Korabelnyy Farvater and St. Petersburg Morskoy Kanal W of the sea walls, speed is restricted to 10 knots. Within the moles and in the harbor area, speed must not exceed 6 knots; the speed limit is 3 knots when passing vessels secured alongside and engaged in diving operations, etc. If steerageway can not be maintained at these speeds, tugs must be employed.

Overtaking in the main fairway is permitted only along the port side of the vessels being passed. Elsewhere in the port, overtaking is permitted on either side.

Vessels carrying explosives, inflammables, or poisonous materials are to await instructions at the St. Petersburg Lighted Buoy.

Vessels are urged to contact the local authorities and the pilot for information on local navigation regulations. The use of the vessel's bridge equipment may be restricted.

See Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for regulations pertaining to vessels in Russian waters.

**Kronshtadt Fortified Zone.**—See Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean for regulations pertaining to Fortified Zones. Kronshtadt Fortified Zone is entered on

passing longitude 29°E. Practically the whole of St. Petersburg Guba lies in a Fortified Zone, which may best be seen on the chart.

Extensive areas are prohibited to navigation, the limits of which are subject to change without notice. Permission to enter the Fortified Zone must be secured from the military authorities in advance, as well as permission to enter Kronshtadt or St. Petersburg.

Vessels must not deviate from the charted courses. A vessel entering a prohibited area will be warned by the firing of a gun or rocket, and such vessel must stop and await orders. Vessels failing to heave-to may be detained.

**Vessel Traffic Service (VTS).**—A mandatory VTS, termed a Ship Traffic Control Service, is in effect for the fairways and harbors E of St. Petersburg Lighted Buoy. In addition to inbound and outbound vessels, the service covers local traffic and movements within St. Petersburg harbor, as well as anchored vessels.

With a visibility of less than 2 miles, vessels navigating between Uuzhnaya Damba (the NE entrance breakwater of St. Petersburg) and St. Petersburg Lighted Buoy are required to maintain a listening watch on VHF channel 12.

Anchored vessels or vessels berthed alongside are requested not to use VHF channels 6, 8, 9, 11, 12, 13, 14, or 26 for intership communications.

Inbound vessels should request permission to proceed either directly or through the pilot. Vessels should also contact the Ship Control Center when passing the reporting points listed below, and upon berthing, or anchoring:

- 1. St. Petersburg Lighted Buoy.
- 2. St. Petersburg Kanal Buoys 23 and 24.
- 3. St. Petersburg Kanal Buoys 29 and 30.
- 4. The heads of the entrance breakwaters.

Vessels intending to operate in the main ship channel between the harbor entrance and the harbor area NE of Lesnoy Mol, should request permission to proceed before passing the harbor entrance if inbound, and before departing berth, if outbound.

Vessels intending to navigate between the area NE of Lesnoy Mol and the NE end of the harbor should contact the Nevskiye Vorota signal station before reaching the SE end of Berth 31 if northeastbound, or before passing Nevskiye Vorota if southeastbound. In winter, permission should be obtained from the Ship Control Center.

The radar station is available for assistance in poor visibility. Storm warnings or a water rise of 1.5m above normal will be broadcast to vessels in St. Petersburg harbor or anchorages.

**Anchorage.**—Waiting Anchorage Area No. 4, which may best be seen on the chart, lies centered about 1 mile NW of St. Petersburg Lighted Buoy (60° 02'N,29° 26'E.). It has depths of 20 to 25m, mud and sand, with good holding ground.

It is reported (1999) that Anchorage Area No. 5 and Anchorage Area No. 5a have been established about 5 miles NNW of St. Petersburg Fairway Lighted Buoy.

**Directions.**—Vessels approaching St. Petersburg Guba should make use of the several Traffic Separation Schemes (TSS) in the Gulf of Finland, which are best seen on the chart.

A buoyed Safety Fairway leads from the TSS traffic lanes located at the E side of the Precautionary Area off Ostrov Seskar (60°02'N., 28°23'E.), through the Kronshtadt Fortified Zone, to the pilot boarding place and waiting anchorage. This channel has a bottom width of 80m and is marked by buoys. The Russian authorities recommend adhering to this fairway, particularly within the Kronshtadt Fortified Zone.

**Caution.**—Deep-draft vessels sometimes conduct cargo lightering operations in the vicinity of the outer anchorage prior to entering the ports.

Care is necessary as it has been reported (1996) that the buoys, lights, and beacons of the TSS in the outer approach to St. Petersburg may be missing or unlit.

There is periodic dredging of the main channel fairways in both the approaches and the ports during the summer navigation season.

Uncharted floating aids may be established in the vicinity of dredging operations and charted floating aids may be out of position. Care must be exercised when navigating in the work areas.

Several restricted areas, including unexploded ordnance areas and mine sweeping exercise areas, lie in the outer approaches and may best be seen on the chart.

### St. Petersburg Guba

**3.2** St. Petersburg Guba, including Nevskaya Guba, extends in an ESE direction for 35 miles from its entrance between Mys Shepelevskiy and Mys Stirsudden, 12 miles NNW.

Kronshtadtskiy Korabelnyy Farvater, about 12 miles long, leads from the E end of the buoyed channel (Safety Fairway) to the vicinity of Kronshtadt. The St. Petersburg Morskoy Kanal then leads to St. Petersburg. Secondary channels, for small craft, lie on either side of this canal.

**3.3 North shore.**—Mys Flotskiy, a low point, is located 4 miles ESE Mys Stirsudden. A light is shown from a framework tower, 20m high, standing on this point.

Mys Pesochnyy is located 9 miles E of Mys Flotskiy and the coats is moderately high and predominantly wooded.

Gora Torkalla, 100m high, stands about 6 miles NNE of Mys Stirsudden and is conspicuous, as it is the highest hill on this part of the coast.

A conspicuous church is situated at Gorod Zelenogorsk (60°12'N., 29°42'E.).

Between Mys Pesochnyy and Mys Dubovskiy, about 15 miles ESE, the shore is mostly sandy, with some marshy areas, and fringed with boulders. Numerous dangers lie between Mys Dubovskiy and Ostrov Kotlin.

A conspicuous tower stands on Mys Lisiy Nos, 4.5 miles S of Mys Dubovskiy. The coast between is low, sandy, and wooded. Numerous holiday resorts stand along this stretch, some close to the shore.

**3.4 South shore.**—The coast is low between Mys Shepelevskiy and Mys Seraya Loshad, about 2.5 miles ENE. At Mys Shepelevskiy, a range of low hills rises, increasing in height as they trend E, until at Mys Krasnaya Gorka, 4 miles farther E, they form a red sandy cliff. This cliff is conspicuous from seaward, but invisible from W. Between Mys Krasnaya

Gorka and Bronnaya Gora, 9.5 miles E, the coast is bordered by low, sandy hills.

Conspicuous churches are situated at Gory Valday (59°58'N., 29°12'E.) and Bol'shaya Izhora (59°56'N., 29°34'E.).

**Ostrov Kotlin** (60°00'N., 29°46'E.) is located at the seaward entrance to Nevskaya Guba. The island is low and its center and W parts are covered with vegetation. The W end of the island consists of a low, rocky cape. The port of Kronshtadt lies at the SE side of the island.

A causeway, with a road, extends in an E direction and connects the N part of the island to Mys Lisiy Nos, on the N shore.

An area of reclaimed land, about 0.4 mile wide, extends SSW from the S shore of the island to the N edge of the fairway channel. Opposite this reclaimed area, a dam extends for about 3 miles from the S shore to the S edge of the fairway channel.

**Tolbukhin Light** (60°03'N., 29°33'E.) is shown from a conspicuous tower with a dwelling, 30m high, standing on a rocky islet, 3 miles WNW of the W end of Ostrov Kotlin.

The island is fringed by a rocky shoal which extends W from its W side to the vicinity of the light.

**Londonskaya Otmel** (59°59'N., 29°30'E.), an extensive rocky shoal, extends up to about 2.5 miles from the S shore, S of Tolbukhin Light. Several dangers lie on this shallow shoal and may best be seen on the chart.

# Kronshtadt (59°59'N., 29°47'E.)

### World Port Index No. 28400

3.5 Kronshtadt is situated at the E end of Ostrov Kotlin and is the largest Russian military harbor on the Baltic. The port consists of a town fronted by five artificial harbors. Foreign commercial vessels may enter the harbor only with special permission.

**Tides—Currents.**—The current in the roadstead runs to the E with winds from the W, at a velocity of 0.5 to 1.5 knots; after sustained W winds bank up the water, the velocity may even reach 3 knots.

**Depths—Limitations.**—Kabotazhnaya Gavan, the coaster harbor, has depths of 1.5 to 7m, with the greatest depths being in the S part.

Kupecheskaya Gavan, the commercial harbor, has depths of 7.3 to 9.4m in the S part and 1.8 to 5.2m in the N part.

Srednyaya Gavan, used by naval vessels, has depths of 8.5 to 10.7m in the S and E parts, but the N part is shallow.

Voyennaya Gavan, also used by naval vessels, is connected to Srednyaya Gavan.

Zavodskaya Gavan fronts the E side of the island and is used by power boats.

Vessels up to 200m in length and 8m draft can enter the port. **Aspect.**—The approach channels are indicated by lighted ranges and marked by buoys, which may best be seen on the chart.

A foundry chimney and the former naval cathedral, both prominent, are situated in the town.

Ostrov Kronshlot, a fortified island, lies close S of the fairway, in the vicinity of the port, and is marked by lights.

For determining the error of the compass during the transit of the roadstead, marks are placed on the outer walls of the harbor basins indicating the true bearing of the foundry chimney. These marks are visible from a distance of 5 miles.

Each complete 10° is shown by two white figures on a background of black and red diagonal stripes. The intervening degrees are shown only by the last number, with even numbers on a black backgound and odd numbers on a red background. Half degrees are marked by a small white circular disc with a black border.

In Bol'shoy Reyd, the bearings shown are from 079° through E to 101°; in Malyy Reyd, from 078° through N to 355°; and in Vostochny Reyd, from 337° to 254° through W. Separate marks for 271° and 278° are shown on two of the piers.

**Regulations.**—When approaching the harbor entrances, proceeding through narrow passages, and generally whenever a close-quarters situation is possible, vessels shall proceed at slow speed and sound a prolonged blast of the whistle.

Vessels intending to enter or leave a harbor shall, at a distance of about 100m from the entrance, sound several prolonged blasts of the whistle to warn vessels on the other side of the harbor wall. The entrance shall not be approached by vessels intending to pass through until the passage is clear; this is shown by a signal hoisted at the signal mast at the entrance.

Anchoring in the roadstead of Kronshtadt is strictly prohibited.

**Directions.**—Kronshtadtskiy Korabel'nyy Farvater leads from the pilot boarding place, in the vicinity of St. Petersburg Lighted Buoy, to the roadstead of Kronshtadt.

**Caution.**—During the day, some ranges in the vicinity of the roadstead are difficult to identify against the buildings in the background.

A submarine cable extends SW and W into the fairway from the port and may best be seen on the chart.

### Nevskaya Guba

**3.6** Nevskaya Guba lies between Ostrov Kotlin and the mouth of the Reka Neva. The S shore, on which there are many villages, descends to the sea in terraces. Both the N and S shores are densely wooded.

Between Mys Lisiy Nos and Lakhta, 6 miles ESE, the N shore of Nevskaya Guba is low, sandy, and wooded. Off the villages of Dubi and Verperow, about 1.2 and 1.8 miles SE of Mys Lisiy Nos, respectively, are two low-lying rocky islets, the easternmost of which is Ostrovki Verperluda. The white tower of the biological institute, standing 5.2 miles E of Mys Lisiy Nos, and Lakhtinskiy Rescue Station, now disused, situated 1.5 miles farther E, are good landmarks. Numerous holiday resorts, some close to the shore, are situated between Mys Lisiy Nos and Lakhta.

On the S shore, a prominent palace stands on a hill near the town of Lomonosov, S of the E end of Ostrov Kotlin. Martyshkina Church, also prominent, is situated 1.8 miles ESE of the palace.

At Petrodvorets, 5 miles ESE, the former palace, with its golden emblem, and the cathedral are conspicuous.

The St. Petersburg Morskoy Kanal connects the E end of Kronshtadtskiy Korabel'nyy Farvater with the harbor of St.

Petersburg. This canal is about 15 miles long. It is marked by buoys and indicated by lighted ranges which may best be seen on the chart.

Vessels entering the canal are usually limited to a maximum length of 260m, a maximum beam of 40m, and a maximum fresh water draft of 11m.

Other minor channels, used by local craft, connect several small harbors within Nevskaya Guba and may best be seen on the chart.

**Lomonosov** (59°55'N., 29°46'E.) (World Port Index No. 28390) is a small naval harbor protected by two breakwaters. A channel leads S from the main fairway at the E end of Ostrov Kotlin to this harbor. There are depths of 3.6 to 7.2m alongside the principal quays.

# St. Petersburg (59°56'N., 30°18'E.)

### World Port Index No. 28370

3.7 The port of St. Petersburg (Sankt Peterburg) is situated on the banks of the River Neva and the islands forming its delta. The city, which was once the capital of Russia, was previously known as Leningrad and Petrograd. The port, used by both naval and commercial vessels, is connected by an interior waterway canal system with the White Sea, the Caspian Sea, and the Black Sea.

#### **Ice**

Navigation is possible all year round with icebreaker assistance from the end of November until about the last week of April. Ice first begins to form in the middle of November. The thickness of the ice averages 0.7m and is never more than 1m.

#### Winds—Weather

Within Nevskaya Guba, SW and W winds prevail in winter and represent 70 to 75 per cent of recordings. In summer, W and NW winds prevail and represent 21 per cent and 18 per cent of recordings, respectively. In spring, the most frequent winds are W and represent 16 to 27 per cent of recordings. In the fall, SW winds prevail and represent 17 to 24 per cent of recordings. Wind force decreases in spring and summer, but increases in the fall and winter.

Calms are most frequent in spring and summer and represent 30 per cent of recordings. Storms are mainly recorded during fall and winter; their occurance fluctuates around 10 per cent of recordings.

Storms are most frequently related to S and SW winds, though they also occur during NW, NE, and E winds. The duration of these storms seldom exceeds 24 hours.

The number of days with fog in Nevskaya Guba averages 57 per year. The largest number of days with fog is recorded during the September to April period, and varies from 5 to 8 days per month. During this period, fogs are thicker and last longer. In winter, fogs occur most frequently during E and NE winds and more rarely during NW and N winds. In spring, fogs are formed during SW and W winds.

### **Tides—Currents**

Basic level fluctuations are caused by the cumulative effect of rollers and by the seiche phenomena. The cumulative fluctuations usually occur suddenly, last a short period of time, and are intensive. Level increases are usually brought on by winds of W directions and decreases by winds of E directions. The value of these fluctuations of level seldom exceeds 0.5m in the spring and summer, but in the fall and winter it reaches 1.2m or more.

Particularly high rises of water are observed in Nevskaya Guba, which in some years has recorded 2.5 to 3.5m, although it was reported (1990) that the rise has been as high as 3.9m. In the Reka Neva estuary, the strongest water level fluctuations occur during SW fall storms.

Seiche level fluctuations usually do not exceed 0.2 to 0.3m, and only in isolated cases do they reach 1m.

The current velocity of the Reka Neva averages about 2 knots, increasing to 3 knots with N winds, and becoming weaker during W winds.

# **Depths—Limitations**

Vessels entering the port of St. Petersburg are restricted to a maximum draft of 11m, a length of 260m, and a beam of 40m. Ocean-going vessels enter via the St. Petersburg Morskoy Kanal. Four other minor channels lead to the port and are used by local small craft.

The port is separated from Nevskaya Guba by Kanonerskaya Otmel. The canal, the main entrance channel, enters the S part of the port. A fairway, swept to a depth of 9.8m, then leads NE to the N part. The main harbor basins lie E of this fairway.

Between the entrance sea walls, the channel is reported to be dredged to a depth of 11.3m.

Ugolnaya Gavan, at the S end of the harbor complex, is bound on its SW side by Ugolnyy Mol and on its NE side by Lesnoy Mol. This basin has an entrance, 140m wide, and depths up to 11m alongside the quays.

An oil berth, with a depth of 10.8m alongside, is situated in the NW part.

Reyd Lesnoyo Mola, the basin lying N of Lesnoy Mol, has depths of 5 to 11.5m alongside the quay on the SW side.

Barochnyy Basseyn lies close NE of Reyd Lesnoyo Mola. This basin has an entrance, 220m wide, and depths up to 11.5m alongside the quays.

Vostochnyy Basseyn is approached via a channel, with a dredged depth of 8.5m, which leads from the SE side of Barochnyy Basseyn and along the N side of Krivaya Damba, a detached breakwater. This basin has depths of 6 to 8m along-side the quays.

Morskoy Kanal, leading to the N part of the port, has berths situated along its E side with depths up to 11.5m alongside.

Gutuyevskiy Kovsh is a small basin which extends E from the N end of the canal. This basin has depths of 4 to 7.6m alongside the quays.

Novaya Kanonerskiy Gavan, a ship repair harbor, has depths of 6.5 to 8m in the approach channel and 4 to 8m in the basin. This harbor area lies between Ostrov Kanonerskiy and Ostrov Belyy. The approach channel leads W between Bolshaya Neva and Neviskiye Vorota, the N entrance to the port.

A passenger terminal is situated on the N shore of Bolshaya Neva. The berths and approach channel have depths of 9.5m.

There is a total of 1,200m of berthage alongside the N and W banks of the river, with depths of 4.2 to 6.1m alongside.

The port has facilities for tanker, bulk, general cargo, container, ro-ro, timber, reefer, cruise, and passenger vessels. There are also facilities for pleasure craft and yachts.

# Aspect

The entire St. Petersburg area is comparatively low, varying from 5m high in the S and E parts, to 10m high in the N part. The region is dominated by the delta of the river.

When approaching the port, the Admiralty, a large building 74m high with a gilded tower, is conspicuous. It is situated on the S bank of the Reka Neva nearly 0.5 mile above the Lieutenant Shmidt Bridge.

Dvoryetz Iskussrv, or Palace of Arts, formerly the Winter Palace, stands close NE of the Admiralty.

The gilded dome of Issac Cathedral, standing close S of the Admiralty, is very conspicuous. Also conspicuous is the gilded and lofty spire of the cathedral rising from the Forts Peter and Paul. It is situated on the opposite shore of the Reka Neva, NE of the Admiralty.

# **Pilotage**

See Pilotage under General Remarks in paragraph 3.1. Departing vessels should order a pilot at least 2 hours prior to departure. Deep-sea pilots are available upon request.

# Regulations

See Regulations under General Remarks in paragraph 3.1. Vessels exceeding 170m in length, with drafts of 8.5m and over, are considered to be constrained by their draft and must be towed in the E part of the St. Petersburg Morskoy Kanal.

# Signals

See Regulations under General Remarks in paragraph 3.1. Storm signals are shown, by day, from the meteorological station at Lebyazh'ya (59°58'N., 29°26'E.) and from the lower yardarm of a mast at Lomonosov.

#### Caution

Care is advised as the entrance channel narrows to a width of about 70m between the sea walls, which were reported (1993) to be in a poor state of repair.